**Contact SAMSUNG WORLDWIDE**
If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care centre.

| Country | Customer Care Centre ☎ | Web Site |
|---|---|---|
| EIRE | 0818 717 100 | www.samsung.com/ie |
| U.K | 0845 SAMSUNG (7267864) | www.samsung.com/uk |

BN68-02391D-00

SERIES 4

# LCD TV
# user manual

## imagine the possibilities

Thank you for purchasing this Samsung product.
To receive more complete service, please register your product at

www.samsung.com/register

Model _____ Serial No. _____

# Information on Use

## Precautions When Displaying a Still Image

A still image may cause permanent damage to the TV screen.

- Do not display a still image and partially still image on the LCD panel for more than 2 hours as it can cause screen image retention. This image retention is also known as screen burn. To avoid such image retention, reduce the degree of brightness and contrast of the screen when displaying a still image.
- Watching the LCD TV in 4:3 format for a long period of time may leave traces of borders displayed on the left, right and centre of the screen caused by the difference of light emission on the screen.
  Playing a DVD or a game console may cause a similar effect to the screen.
  Damages caused by the above effect are not covered by the Warranty.
- Displaying still images from Video games and PC for longer than a certain period of time may produce partial after-images. To prevent this effect, reduce the 'brightness' and 'contrast' when displaying still images.

**WARNINGS:**

Image retention, commonly known as screen burn-in, can occur on most types of television if the same image is displayed continuously. The most common causes of image retention are logos that remain stationary on the TV screen. These logos are common on many programmes received via a Set-top Box.

To reduce this risk, avoid displaying still images for long durations and lower the brightness or contrast settings to decrease the intensity of the picture. Extended viewing of movies and programs in aspect ratios that are different from the aspect ratio of the TV may cause image retention. Always endeavour to avoid black borders top or bottom by using the zoom function. This will help eliminate the black borders and fit the picture to the entire area of the screen. Using a video game console may cause image retention and is not recommended. When using a PC input, avoid displaying still images for long durations and reduce the brightness or contrast settings to decrease the intensity of the picture.

**IMPORTANT:**

Image retention issues are not covered by your Samsung® warranty.

## Digital TV Notice

- **Functionalities related to Digital TV(DVB) are only available in countries/areas where DVB-T (MPEG2 and MPEG4 AVC) digital terrestrial signals are broadcasted or where you are able to access to a compatible DVB-C(MPEG2 and MPEG4 AAC) cable- TV service. Please check with your local dealer the possibility to receive DVB-T or DVB-C signal.**
- **DVB-T is the DVB European consortium standard for the broadcast transmission of digital terrestrial television and DVBC is that for the broadcast transmission of digital TV over cable. However, some differentiated features like EPG (Electric Programme Guide), VOD (Video on Demand) and so on, are not included in this specification. So, they cannot be workable at this moment.**
- **Although this TV set meets the latest DVB-T and DVB-C standards, as of [August, 2008], the compatibility with future DVB-T digital terrestrial and DVB-C digital cable broadcasts cannot be guaranteed.**
- **Depending on the countries/areas where this TV set is used some cable-TV providers may charge an additional fee for such a service and you may be required to agree to terms and conditions of their business.**
- **Some Digital TV functions might be unavailable in some countries or regions and DVB-C might not work correctly with some cable service providers.**
- **For more information, please contact your local Samsung customer care centre.**

## Trademark & Label License Notice

| | |
|---|---|
| SRS (●) TruSurround HD DIGITAL | **TruSurround HD**, SRS and (●) symbol are trademarks of SRS Labs, Inc. **TruSurround HD** technology is incorporated under license from SRS Labs, Inc. |
| DOLBY DIGITAL PLUS | Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories. |

## Symbol

| | |
|---|---|
| | Note |
| | One-Touch Button |
| | TOOLS Button |
| | Press |

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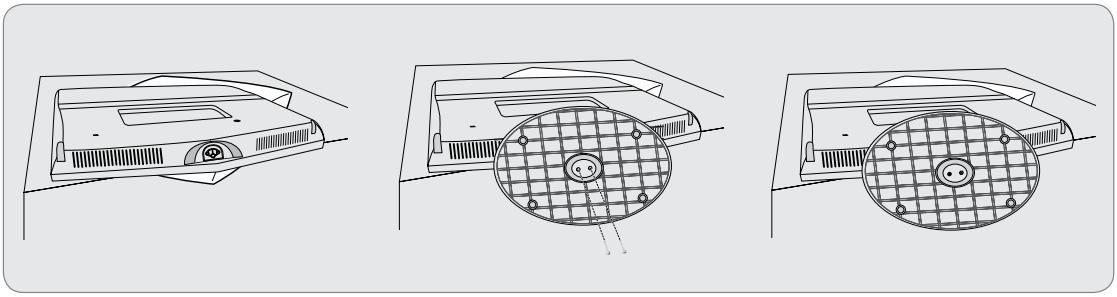
# Getting Started

## Installing the Stand

1 Place the front of the TV onto a soft cloth or cushion on a table.
- Align the TV bottom along the table edge.

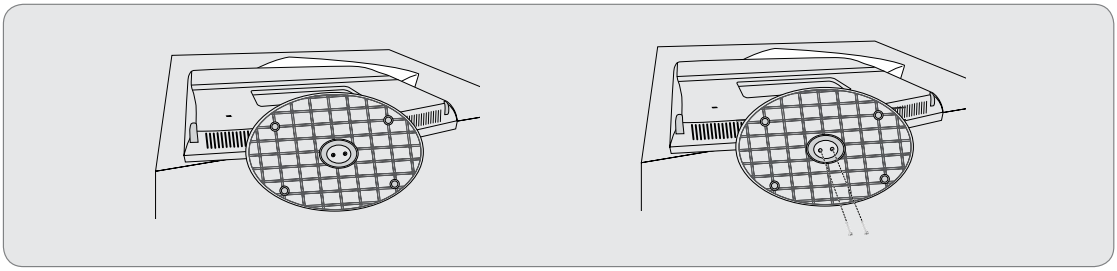
2 Fasten screws at bottom of the stand.
- Stand the product up and fasten the screws. If you fasten the screws with the LCD TV placed down, it may lean to one side.



## Disconnecting the Stand

1 Place the front of the TV onto a soft cloth or cushion on a table.
- Align the TV bottom along the table edge.

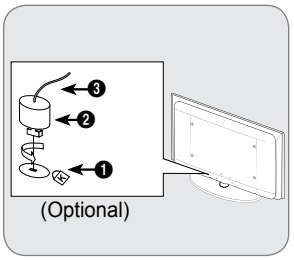
2 Remove screws at bottom of the stand.



# Anti-Theft Kensington Lock

The Kensington Lock is a device used to physically fix the system when using it in a public place.
The appearance and locking method may differ from the illustration depending on the manufacturer.
Refer to the manual provided with the Kensington Lock for proper use.

- The locking device has to be purchased separately.
- The location of the Kensington Lock may be different depending on its model.



(Optional)

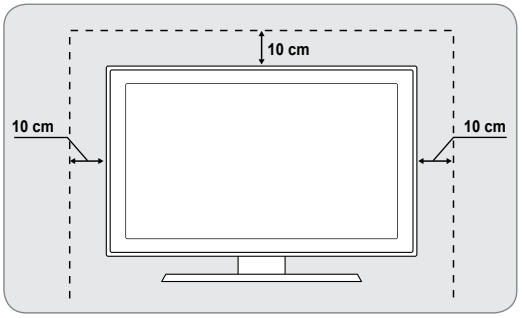
1. Insert the locking device into the Kensington slot on the LCD TV (❶) and turn it in the locking direction (❷).
2. Connect the Kensington Lock cable (❸).
3. Fix the Kensington Lock to a desk or a heavy stationary object.

# Securing the Installation Space

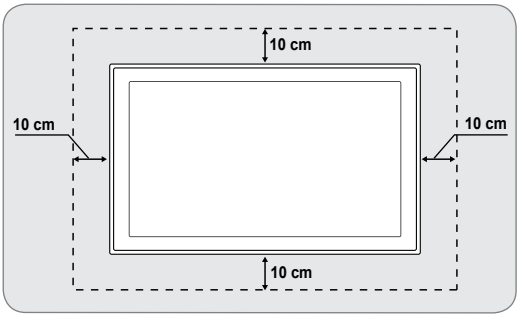
Keep the required distances between the product and other objects (e.g. walls) to ensure proper ventilation.
Failing to do so may result in fire or a problem with the product due to an increase in the internal temperature of the product.
Install the product so the required distances shown in the figure are kept.

- When using a stand or wall-mount, use parts provided by Samsung Electronics only.
  - If you use parts provided by another manufacturer, it may result in a problem with the product or an injury due to the product falling.
  - If you use parts provided by another manufacturer, it may result in a problem with the product or fire due to an increase in the internal temperature of the product due to poor ventilation.
- The appearance may differ depending on the product.

**When installing the product with a stand**




**When installing the product with a wall-mount**

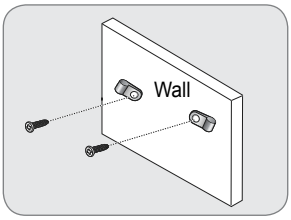


# Securing the TV to the Wall

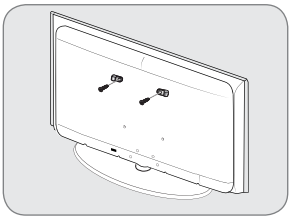
**Caution:** Pulling, pushing, or climbing on the TV may cause the TV to fall. In particular, ensure your children do not hang over or destabilize the TV; doing so may cause the TV to tip over, causing serious injuries or death. For added stability, install the anti-fall device for safety purposes, as follows.

## To avoid the TV from falling:

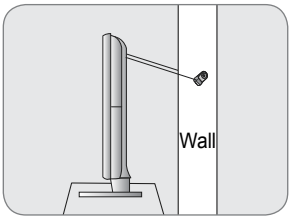
**1** Put the screws into the clamps and firmly fasten them onto the wall. Confirm that the screws have been firmly installed onto the wall.
- You may need additional material such as an anchor depending on the type of wall.
- Since the necessary clamps, screws, and string are not supplied, please purchase these additionally.




**2** Remove the screws from the centre back of the TV, put the screws into the clamps, and then fasten the screws onto the TV again.
- Screws may not be supplied with the product. In this case, please purchase the screws of the following specifications.
- Screw Specifications:
  - For a 17 ~ 29 Inch LCD TV: M4 X L15
  - For a 32 ~ 40 Inch LCD TV: M6 X L15



**3** Connect the clamps fixed onto the TV and the clamps fixed onto the wall with a strong string and then tie the string tightly.
- Install the TV near to the wall so that it does not fall backwards.
- It is safe to connect the string so that the clamps fixed on the wall are equal to or lower than the clamps fixed on the TV.
- Untie the string before moving the TV.




**4** Verify all connections are properly secured. Periodically check connections for any sign of fatigue for failure. If you have any doubt about the security of your connections, contact a professional installer.

# Accessories

- **Please make sure the following items are included with your LCD TV. If any items are missing, contact your dealer.**

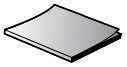
Remote Control & Batteries (AAA x 2)

Power Cords

Cleaning Cloth

(M4 X L16)

Stand Screw X 2

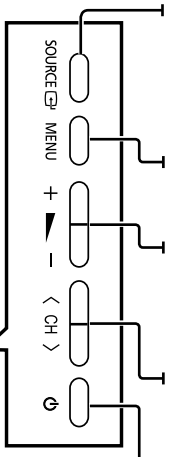


User Manual

- The items colour and shape may vary depending on the model.
- Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice in order to enhance product performance.

# Viewing the Control Panel

- **The product colour and shape may vary depending on the model.**
- **The front panel buttons can be activated by touching them with your finger.**




Toggles between all the available input sources. In the on-screen menu, use this button as you would use the **ENTER** button on the remote control.

Press to see an on-screen menu of your TV's features.

Press to increase or decrease the volume. In the on-screen menu, use the **−** **+** buttons as you would use the ◄ and ► buttons on the remote control.

Press to change channels. In the on-screen menu, use the **CH** buttons as you would use the ▼ and ▲ buttons on the remote control.

Press to turn the TV on and off.

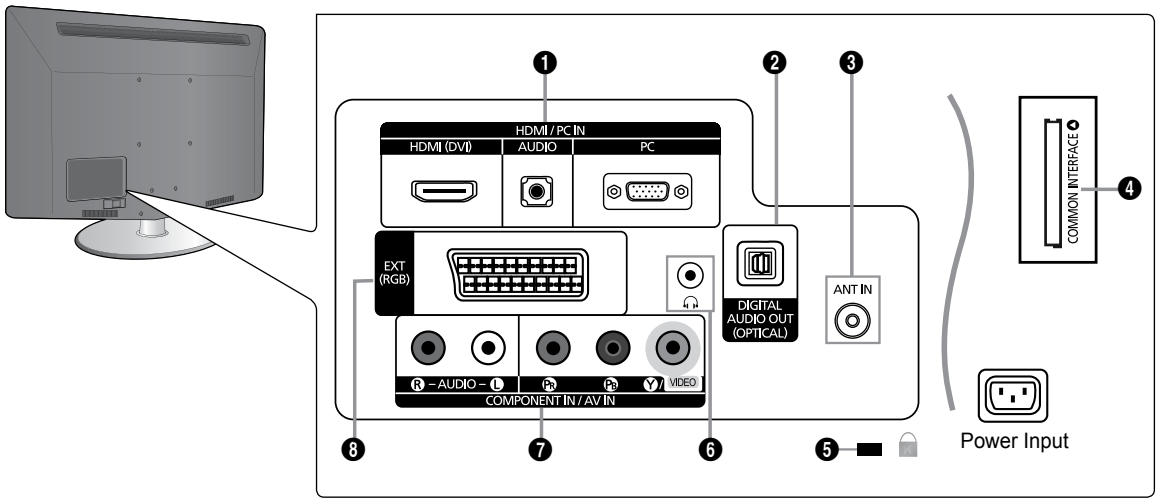
Speakers

Aim the remote control towards this spot on the TV.

Blinks and turns off when the power is on and lights up in stand-by mode.

# Viewing the Connection Panel

■ **The product colour and shape may vary depending on the model.**




❶ **HDMI / PC IN [HDMI (DVI)]**
Connects to the HDMI jack of a device with an HDMI output.

- No additional Audio connection is needed for an HDMI to HDMI connection.
- What is HDMI?
  'High Definition Multimedia interface' allows the transmission of high definition digital video data and multiple channels of digital audio.
  The difference between HDMI and DVI is that the HDMI device is smaller in size and has the HDCP (High Bandwidth Digital Copy Protection) coding feature installed.
- Use the **HDMI / PC IN [HDMI (DVI)]** jack for DVI connection to an external device. Use a DVI to HDMI cable or DVI-HDMI adapter (DVI to HDMI) for video connection and the **HDMI / PC IN [AUDIO]** jacks for audio. When using an HDMI / DVI cable connection, you must use the **HDMI / PC IN [HDMI (DVI)]** jack.

**HDMI / PC IN [AUDIO]**
Connect to the audio output jack on your PC.
DVI audio outputs for external devices.

**HDMI / PC IN [PC]**
Connect to the video output jack on your PC.

- If your PC supports an HDMI connection, you can connect this to the **HDMI / PC IN [HDMI (DVI)]** terminal.
- If your PC supports a DVI connection, you can connect this to the **HDMI / PC IN [HDMI (DVI)] / [AUDIO]** terminal.

❷ **DIGITAL AUDIO OUT (OPTICAL)**
Connects to a Digital Audio component such as a Home theatre receiver.

- When the HDMI IN jacks are connected, the **DIGITAL AUDIO OUT (OPTICAL)** jack on the TV outputs 2 channel audio only. If you want to hear 5.1 channel audio, connect the Optical jack on the DVD / Blu-ray player or Cable / Satellite Box directly to an Amplifier or Home Theatre, not the TV.

❸ **ANT IN**
Connects to an antenna or cable TV system.

❹ **COMMON INTERFACE** Slot

- When not inserting 'CI CARD' in some channels, 'Scrambled Signal' is displayed on the screen.
- The pairing information containing a telephone number, CI CARD ID, Host ID and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the channel information configuration has finished, the message 'Updating Completed' is displayed, indicating that the channel list is now updated.
  - You must obtain a CI CARD from a local cable service provider. Remove the CI CARD by carefully pulling it out with your hands since dropping the CI CARD may cause damage to it.
  - Insert the CI-Card in the direction marked on it.
  - The place of the **COMMON INTERFACE** Slot may be different depending on its model.
  - CAM is not supported in some countries and regions, check with your authorized dealer.

❺ **KENSINGTON LOCK** (depending on the model)

The Kensington Lock (optional) is a device used to physically fix the system when used in a public place.
If you want to use a locking device, contact the dealer where you purchased the TV.

- The location of the Kensington Lock may be different depending on its model.
- When connecting, use the appropriate connector.

❻ **Headphones jack**

Headphone may be connected to the headphone output on your set. While the head phone is connected, the sound from the built-in speakers will be disabled.

- Using the sound function is restricted when connecting headphones to the TV.
- Prolonged use of headphones at a high volume may damage your hearing.
- You will not hear sound from the speakers when you connect headphones to the TV.
- The headphone volume and TV volume are adjusted separately.

❼ **COMPONENT IN / AV IN**

Connect component video cables (optional) to component connector ($P_R$, $P_B$, Y) on the rear of your set and the other ends to corresponding component video out connectors on the DTV or DVD.

If you wish to connect both the Set-Top Box and DTV (or DVD), you should connect the Set-Top Box to the DTV (or DVD) and connect the DTV (or DVD) to component connector ($P_R$, $P_B$, Y) on your set.

The $P_R$, $P_B$ and Y connectors on your component devices (DTV or DVD) are sometimes labeled Y, B-Y and R-Y or Y, Cb and Cr.

Connect RCA audio cables (optional) to **[R-AUDIO-L]** on the rear of your set and the other ends to corresponding audio out connectors on the DTV or DVD.

The **COMPONENT IN** jack is also used as the **AV IN** jack.

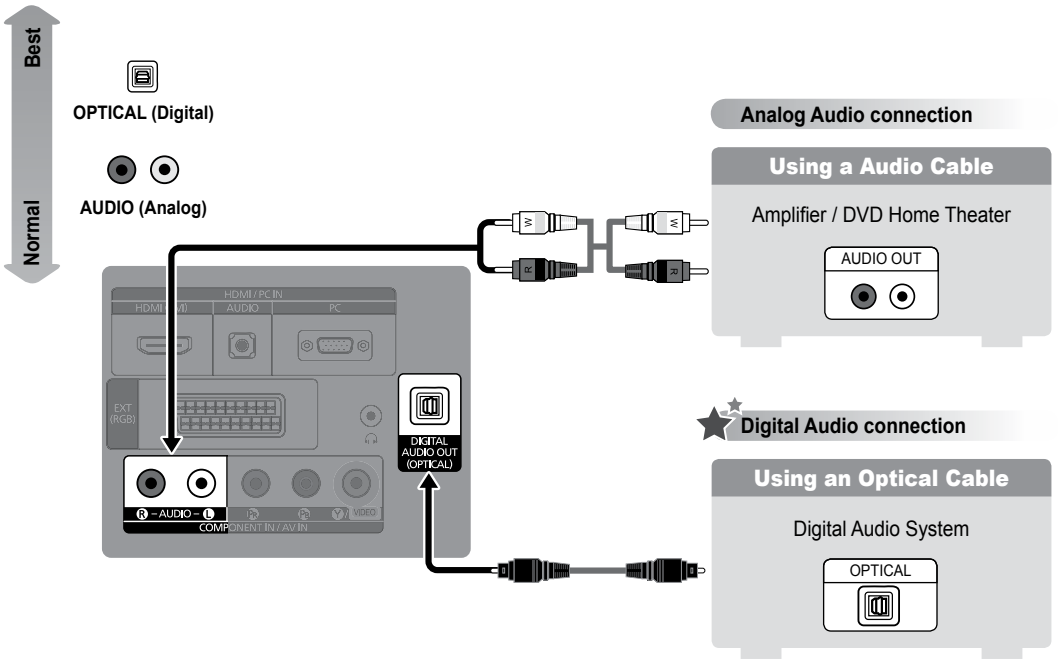
- Connect the video cable to the **COMPONENT IN [Y/VIDEO]** jack and the audio cable to the **COMPONENT IN [R-AUDIO-L]** jacks.

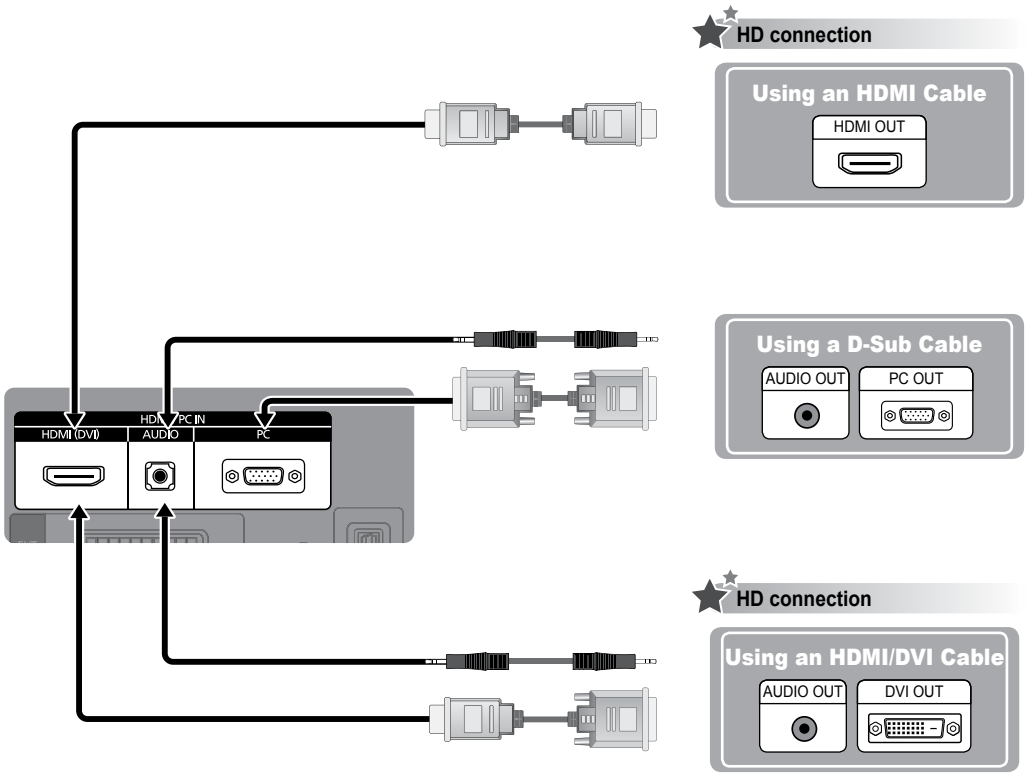
❽ **EXT (RGB)**

| Connector | Input | | | Output |
|---|---|---|---|---|
| | Video | Audio (L / R) | RGB | Video + Audio (L / R) |
| EXT | O | O | O | Only TV or DTV output is available. |

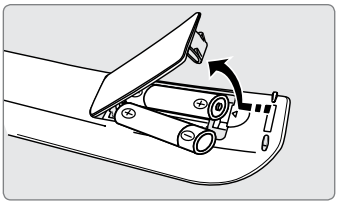
Inputs or outputs for external devices, such as VCR, DVD, video game device or video disc players.

# Connections



# Installing Batteries in the Remote Control



1 Lift the cover at the back of the remote control upward as shown in the figure.

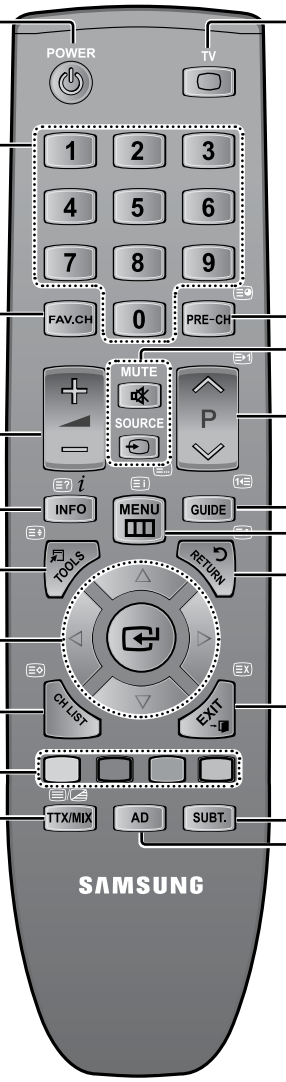
2 Install two AAA size batteries.
- Make sure to match the '+' and '–' ends of the batteries with the diagram inside the compartment.

3 Replace the cover.
- Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time.

- If the remote control doesn't work, check the following:
  - Is the TV power on?
  - Are the plus and minus ends of the batteries reversed?
  - Are the batteries drained?
  - Is there a power outage or is the power cord unplugged?
  - Is there a special fluorescent light or neon sign nearby?

# Viewing the Remote Control

- **You can use the remote control up to a distance of about 23 feet from the TV.**
- **The performance of the remote control may be affected by bright light.**
- **The product colour and shape may vary depending on the model.**




Turns the TV on and off.

Selects the TV mode directly. (p. 33, 34)

Press to change the channel.

Enables you to return to the previous channel you were watching.

Press to switch to your favourites channels. (p. 19)

Press to temporarily cut off the sound. (p. 32)

Press to display and select the available video sources. (p. 31)

Press to increase or decrease the volume.

Press to change channels.

Press to display information on the TV screen. (p. 15)

Displays the Electronic Programme Guide (EPG). (p. 18)

Use to quickly select frequently used functions.

Displays the main on-screen menu. (p. 16)

Use to select on-screen menu items and change menu values. (p. 16)

Returns to the previous menu.

Displays the Channel List on screen. (p. 19)

Press to exit the menu. (p. 16)

Use these buttons in the Channel list menus etc.

Displays the Digital subtitle. (p. 28)

Alternately select Teletext, Double, or Mix. (p. 34)

Audio Description selection.

| Teletext **Functions** (p. 33) | | | | | |
|---|---|---|---|---|---|
| | Teletext mode selection (LIST / FLOF) | | Teletext reveal | | Teletext previous page |
| | Teletext store | | Exit from the Teletext display | | Teletext index |
| | Teletext size selection | | Teletext sub page | | Teletext hold |
| Colour buttons | Fastext topic selection | | Teletext next page | | Teletext cancel |

# Basic Operation

## Placing Your Television in Standby Mode

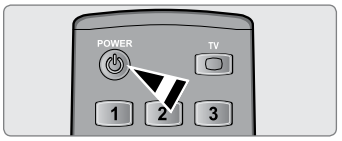
**Your set can be placed in standby mode in order to reduce the power consumption. The standby mode can be useful when you wish to interrupt viewing temporarily (during a meal, for example).**

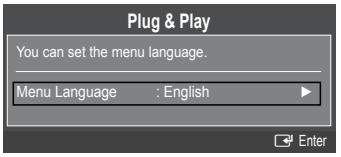
1. Press the **POWER** ⏻ button on the remote control.
   - The screen is turned off and a standby indicator appears on your set.
2. To switch your set back on, simply press the **POWER** ⏻ button again.
   - Do not leave your set in standby mode for long periods of time (when you are away on holiday, for example). It is best to unplug the set from the mains and aerial.

## Plug & Play Feature

**When the TV is initially powered on, basic settings proceed automatically and subsequently.**

1. Press the **POWER** button.
   - You can also use the **POWER** ⏻ button on the TV.
   - The message **You can set the menu language.** is displayed.
2. Select the appropriate language by pressing the ▲ or ▼ button.
   Press the **ENTER** ↵ button to confirm your choice.
3. Press the ◄ or ► button to select **Store Demo** or **Home Use**, then the **ENTER** ↵ button.
   - We recommend setting the TV to **Home Use** mode for the best picture in your home environment.
   - **Store Demo** mode is only intended for use in retail environments.
   - If the unit is accidentally set to **Store Demo** mode and you want to return to **Home Use** (**Standard**): Press the volume button on the TV. When the volume OSD is displayed, press and hold the **MENU** button on the TV for 5 seconds.
4. Press the **ENTER** ↵ button. Select the appropriate country by pressing the ▲ or ▼ button. Press the **ENTER** ↵ button to confirm your choice.
5. Press the ▲ or ▼ button to select **Air** or **Cable**, then press the **ENTER** ↵ button.
   - **Air**: **Air** antenna signal.
   - **Cable**: **Cable** antenna signal.
6. Press the ▲ or ▼ button to select the channel source to memorize.
   Press the **ENTER** ↵ button to select **Start**.
   - When setting the antenna source to **Cable**, a step appears allowing you to set a value for the digital channel search. For more information, refer to **Channel → Auto Store**.
   - **Digital & Analogue**: Digital and Analogue channels.
   - **Digital**: Digital channels.
   - **Analogue**: Analogue channels.
   - The channel search will start and end automatically.
   - After all the available channels are stored, the message **Set the Clock Mode.** is displayed.
7. Press the **ENTER** ↵ button. Press the ▲ or ▼ button to select **Auto**, then press the **ENTER** ↵ button.
   - If you select **Manual**, **Set current date and time** is displayed.
   - If you have received a digital signal, the time will be set automatically. If not, select **Manual** to set the clock. (Refer to page 27)
8. The connection method to provide the best quality HD is offered.
   After confirming the method, press the **ENTER** ↵ button.
9. The message **Enjoy your TV.** is displayed. When you have finished, press the **ENTER** ↵ button.




- Press the **ENTER** ↵ button at any time to interrupt the memorization process.

## If you want to reset this feature...

1. Press the **MENU** button.
   Press the ▲ or ▼ button to select **Setup**, then press the **ENTER** ↵ button.
2. Press the **ENTER** ↵ button again to select **Plug & Play**.
3. Enter your 4 digit PIN number.
   - The default PIN number of a new TV set is **0-0-0-0**.
   - If you want to change PIN number, use the **Change PIN** function. (refer to page 29)

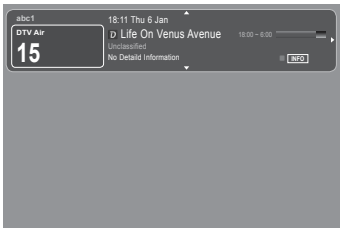
- The **Plug & Play** feature is only available in the TV mode.

# Viewing the Display

**The display identifies the current channel and the status of certain audio-video settings.**

1. Press the **INFO** button on the remote control.
   The TV will display the channel, the type of sound, and the status of certain picture and sound settings.
   - ▲, ▼: You can view other channel's information. If you want to move to the currently selected channel, press **ENTER** ↵ button.
   - ◄, ►: You can view the desired program's information at the current channel.
   - Press the **INFO** button once more or wait approximately 10 seconds and the display disappears automatically.

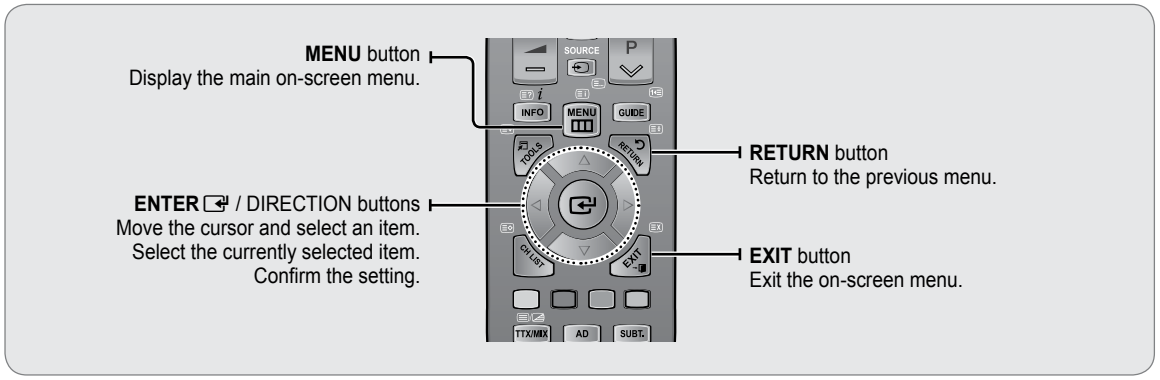
- Press the **INFO** button to viewing the information.



# Using the Menus

## Viewing the Menus

**Menu provides one button access for controlling your TV. It enables you to perform a variety of tasks intuitively with a control panel on the screen rather than a variety of remote control button presses.**




### Operation the Menu

The access step may differ depending on the selected menu.

1. Press the **MENU** button.
   - The menu is displayed on the screen.
2. Press the ▲ or ▼ button to select one of the icons.
   Press the **ENTER** button to access the icon's sub-menu.
3. Press the ▲ or ▼ button to move to items in the menu.
   Press the **ENTER** button to enter items in the menu.
4. Press the ▲/▼/◄/► button to change the selected items.
   Press the **RETURN** button to return to the previous menu.
5. Press the **EXIT** button to exit from the menu.

## Channel Menu

| Channel | |
|---|---|
| **Option** | **Description** |
| **Country** | The PIN number input screen appears. Enter your 4 digit PIN number.<br>❑ **Analogue Channel**<br>You can change the country for analogue channels.<br>❑ **Digital Channel**<br>You can change the country for digital channels. |
| **Auto Store** | You can scan for the frequency ranges available to you (and availability depends on your country). Automatically allocated programme numbers may not correspond to actual or desired programme numbers.<br>Scans for all channels with active broadcast stations and stores them in the TV's memory. |

- If a channel is locked using the **Child Lock** function, the PIN input window appears.

| Channel | |
|---|---|
| **Option** | **Description** |
| **Auto Store** | ■ **Digital & Analogue**<br>Digital and Analogue channels.<br>■ **Digital**<br>Digital channels.<br>■ **Analogue**<br>Analogue channels.<br><br>**When selecting 'Cable → Digital & Analogue' or 'Cable → Digital'**<br>Provide a value to scan for cable channels.<br>■ **Search Mode → Full / Network /Quick**<br>■ **Quick**<br>– **Network ID**: Displays the network identification code.<br>– **Frequency**: Displays the frequency for the channel.<br>– **Modulation**: Displays available modulation values.<br>– **Symbol Rate**: Displays available symbol rates. |
| **Manual Store** | Scans for a channel manually and stores it in the TV's memory.<br><br>❑ **Digital Channel**<br>Manual store for digital channels.<br>■ **Channel**: Set the Channel number using the ▲, ▼ or number (**0~9**) buttons.<br>■ **Frequency**: Set the frequency using the number buttons.<br>■ **Bandwidth**: Set the bandwidth using the ▲, ▼ or number (**0~9**) buttons.<br>When it has finished, channels are updated in the channel list.<br><br>❑ **Analogue Channel**<br>Manual store for analogue channel.<br>■ **Programme** (Programme number to be assigned to a channel): Sets the programme number using the ▲, ▼ or number (**0~9**) buttons.<br>■ **Colour System → Auto / PAL / SECAM / NTSC4.43**: Sets the colour system value using the ▲ or ▼ button.<br>■ **Sound System → BG / DK / I / L**: Sets the sound system value using the ▲ or ▼ button.<br>■ **Channel** (When you know the number of the channel to be stored): Press the ▲ or ▼ button to select **C** (Air channel) or **S** (Cable channel). Press the ► button, then press the ▲, ▼ or number (**0~9**) buttons to select the required number.<br>– You can also select the channel number directly by pressing the number (**0~9**) buttons.<br>– If there is abnormal sound or no sound, reselect the sound standard required.<br>■ **Search** (When you do not know the channel numbers): Press the ▲ or ▼ button to start the search. The tuner scans the frequency range until the first channel or the channel that you selected is received on the screen.<br>■ **Store** (When you store the channel and associated programme number): Set to **OK** by pressing the **ENTER** ↵ button. |
| **Cable Search Option** **(depending on the country)** | Sets additional search options such as the frequency and symbol rate for cable network searches.<br>■ **Freq.Start** (**Frequency Start**): Set the start frequency<br>■ **Freq.Stop** (**Frequency Stop**): Set the stop frequency<br>■ **Modulation**: Displays available modulation values.<br>■ **Symbol Rate**: Displays available symbol rates. |

■ Scans for all channels with active broadcast stations and stores them in the TV's memory.

■ If you want to stop Auto Store, press the **ENTER** ↵ button. The **Stop Auto Store?** message will be displayed. Select **Yes** by pressing the ◄ or ► button, then press the **ENTER** ↵ button.

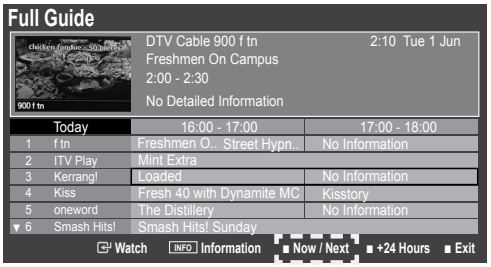
■ If a channel is locked using the **Child Lock** function, the PIN input window appears.
■ **Digital Channel** is only available in DTV mode.

■ **Channel mode**
– **P** (Programme mode): When completing tuning, the broadcasting stations in your area have been assigned to position numbers from P00 to P99. You can select a channel by entering the position number in this mode.
– **C** (Air channel mode): You can select a channel by entering the assigned number to each air broadcasting station in this mode.
– **S** (Cable channel mode): You can select a channel by entering the assigned number for each cable channel in this mode.

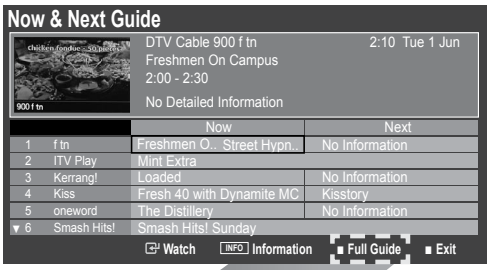
| Channel | |
|---|---|
| **Option** | **Description** |
| **Now & Next Guide / Full Guide / Default Guide** | The EPG (Electronic Programme Guide) information is provided by the broadcasters. Programme entries may appear blank or out of date as a result of the information broadcast on a given channel. The display will dynamically update as soon as new information becomes available.<br><br>❑ **Now & Next Guide**<br>For the six channels indicated in the left-hand column, displays the Current programme and the Next programme information.<br><br>❑ **Full Guide**<br>Displays the programme information as time ordered One hour segments. Two hours of programme information is displayed which may be scrolled forwards or backwards in time.<br><br>❑ **Default Guide → Now & Next Guide / Full Guide**<br>You can decide whether to display either the **Now & Next Guide** or the **Full Guide** when the **GUIDE** button on the remote control is pressed. |

■ You can also display the guide menu simply by pressing the **GUIDE** button. (To configure the **Default Guide**, refer to the descriptions.)

**Full Guide**




**Now & Next Guide**




(Red)

**Using the Now & Next Guide / Full Guide**

| To... | Then... |
|---|---|
| Watch a programme in the EPG list | Select a programme by pressing the ▲, ▼, ◄, ► button. |
| Exit the guide | Press the Blue button |
| If the next programme is selected, it is scheduled with the clock icon displayed. If the **ENTER** button is pressed again, press the ◄, ► button to select **Cancel Schedules**, the scheduling is cancelled with the clock icon gone. | |
| View programme information | Select a programme of your choice by pressing the ▲, ▼, ◄, ► button. Then press the **INFO** button when the programme of your choice is highlighted. The programme title is on the upper part of the screen centre. |
| Please click on **INFO** button for the detailed information. Channel Number, Running Time, Status Bar, Parental Level, Video Quality Information (HD / SD), Sound Modes, Subtitle or Teletext, languages of Subtitle or Teletext and brief summary of the highlighted programme are included on the detailed information. "..." will be appeared if the summary is long. | |
| Toggle between the **Now & Next Guide** and **Full Guide** | Press the Red button repeatedly. |
| In Full Guide<br>Scrolls backwards quickly (24 hours).<br>Scrolls forwards quickly (24 hours). | <br>Press the Green button repeatedly.<br>Press the Yellow button repeatedly. |

## Channel

| Option | Description |
|---|---|
| **Channel List** | Using this menu, you can add / delete or set favourites channels and use the programme guide for digital broadcasts. |

### ❑ All Channels

Shows all currently available channels.

### ❑ Added Channels

Shows all added channels.

### ❑ Favourites

Shows all favourite channels.

- To select the Favourites channels you have set up, press the **FAV.CH** button on the remote control.

### ❑ Programmed

Shows all current reserved programmes.

- Select a channel in the **All Channels**, **Added Channels** or **Favourites** screen by pressing the ▲ / ▼ buttons, and pressing the **ENTER** button. Then you can watch the selected channel.

**Using the Colour buttons with the Channel List**

- Red (**Channel Type**): Toggle between your **TV**, **Radio**, **Data / Other** and **All**.
- Green (**Zoom**): Enlarges or shrinks a channel number.
- Yellow (**Select**): Selects multiple channel lists. You can perform the add/delete or add to favourites/ delete from favourites function for multiple channels at the same time. Select the required channels and press the Yellow button to set all the selected channels at the same time. The ✓ mark appears to the left of the selected channels.

**Channel List Option Menu (in All Channels / Added Channels / Favourites)**

- Press the **TOOLS** button to use the option menu.
- Option menu items may differ depending on the channel status.

### ❑ Add / Delete

You can delete or add a channel to display the channels you want.

- All deleted channels will be shown on **All Channels** menu.
- You can also delete a channel to the **Added Channels** or **Favourites** menu in the same manner.

### ❑ Add to Favourite / Delete from Favourite

You can set channels you watch frequently as favourites.

- The '♥' symbol will be displayed and the channel will be set as a favourite.
- All favourite channels will be shown on **Favourites** menu.

### ❑ Timer Viewing

If you reserve a programme you want to watch, the channel is automatically switched to the reserved channel in the Channel List; even when you are watching another channel. To reserve a programme, set the current time first.
(Refer to page 27)

- You can set the channel, day, month, year, hour and minute directly by pressing the number buttons on the remote control.
- Reserving a programme will be shown in the **Programmed** menu.
- **Digital Programme Guide and Viewing Reservation**: When a digital channel is selected, and you press the ► button, the Programme Guide for the channel appears. You can reserve a programme according to the procedures described above.

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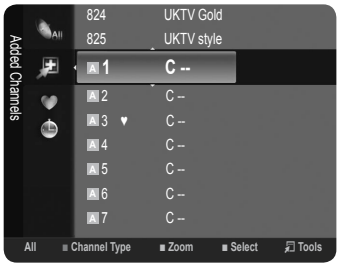
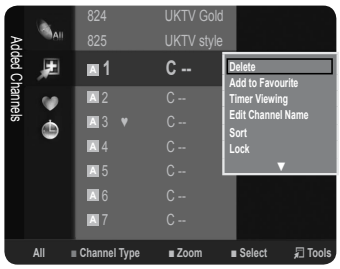
- You can select these options by simply pressing the **CH LIST** button on the remote control.




- **TOOLS (Tools)**: Displays the **Delete** (or **Add**), **Add to Favourite** (or **Delete from Favourite**), **Lock** (or **Unlock**), **Timer Viewing**, **Edit Channel Name**, **Edit Channel Number**, **Sort**, **Select All** (or **Deselect All**), **Auto Store** menu. (The Options menus may differ depending on the situation.)

- **Channel Status Display Icons**
  - A : An Analogue channel.
  - ✓ : A channel selected by pressing the Yellow button.
  - ♥ : A channel set as a Favourite.
  - : A programme currently being broadcast.
  - : A locked channel.
  - : A reserved programme




- Press the **TOOLS** button to display the **Tools** menu. You can also set the add to (or delete from) Favourite by selecting **Tools** → **Add to Favourite** (or **Delete from Favourite**).

- A gray-coloured channel indicates the channel has been deleted.
- The **Add** menu only appears for deleted channels.

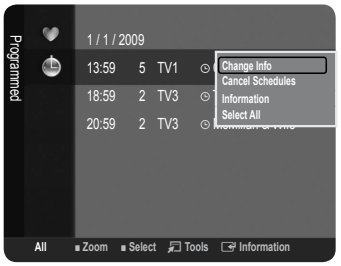
- Only memorized channels can be reserved.

## Channel

| Option | Description |
|---|---|
| **Channel List** | ❑ **Edit Channel Name (analogue channels only)**<br>Channels can labelled so that their call letters appear whenever the channel is selected.<br><br>❑ **Edit Channel Number (digital channels only)**<br>You can also edit the channel number by pressing the number buttons on the remote control.<br><br>❑ **Sort (analogue channels only)**<br>This operation allows you to change the programme numbers of the stored channels. This operation may be necessary after using the auto store.<br><br>❑ **Lock / Unlock**<br>You can lock a channel so that the channel cannot be selected and viewed.<br>■ This function is available only when the **Child Lock** is set to **On**. (Refer to page 29.)<br>■ The PIN number input screen appears. Enter your 4 digit PIN number.<br>■ The default PIN number of a new TV set is **0-0-0-0**. You can change the PIN, by selecting **Change PIN** from the menu.<br>■ The '🔒' symbol will be displayed and the channel will be locked.<br><br>❑ **Select All / Deselect All**<br>■ **Select All**: You can select all the channels in the channel list.<br>■ **Deselect All**: You can deselect all the selected channels.<br><br>❑ **Auto Store**<br>For detailed procedures on setting up options, refer to pages 16~17.<br><br>**Channel List Option Menu (in Programmed)**<br>You can view, modify or delete a reservation.<br>Press the **TOOLS** button to use the option menu.<br><br>❑ **Change Info**<br>Select to change a viewing reservation.<br><br>❑ **Cancel Schedules**<br>Select to cancel a viewing reservation.<br><br>❑ **Information**<br>Select to view a viewing reservation.<br>(You can also change the reservation information.)<br><br>❑ **Select All**<br>Select all reserved programmes. |
| **Channel Mode** | When press the **P** ∨/∧ button, Channels will be switched within the selected channel list.<br><br>❑ **Added Ch.**<br>Channels will be switched within the memorized channel list.<br><br>❑ **Favourite Ch.**<br>Channels will be switched within the favourite channel list. |
| **Fine Tune** | If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, you may have to fine tune the channel manually.<br>■ Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.<br>■ To reset the fine-tuning, select **Reset** by pressing the ▲ or ▼ button and then press the **ENTER** ↵ button. |

■ The names of digital broadcasting channels are automatically assigned and cannot be renamed.

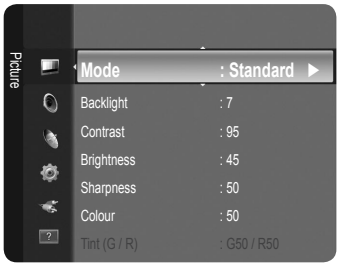
■ You can only select **Deselect All** when there is a selected channel.




■ Only Analogue TV channels can be fine tuned.

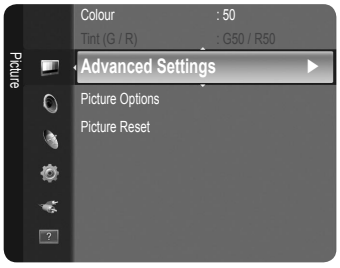
# Picture Menu

| Picture | |
|---|---|
| **Option** | **Description** |
| **Mode** | Selects the type of picture settings that best correspond to your viewing preferences or requirements. Presets a higher brightness, contrast, and sharpness to the picture.<br>■ **Dynamic**<br>Recommended for use in bright room conditions.<br>■ **Standard**<br>Recommended for use in a normal viewing condition.<br>■ **Movie**<br>Corresponding to the conditions used in movie, recommended for use in darker viewing conditions. |
| **Backlight / Contrast / Brightness / Sharpness / Colour / Tint(G/R)** | Your television has several setting options that allow you to control the picture quality.<br>■ **Backlight**<br>Adjusts the brightness of LCD back light.<br>■ **Contrast**<br>Increases or decreases the brightness in white areas of the picture. Too little contrast and the picture may seem dark; too much contrast and the picture will lose details in white images.<br>■ **Brightness**<br>Increases or decreases the overall brightness of the picture, but best used to adjust the black level of the image. Too little brightness and shadow detail will be lost; too much brightness and blacks will be gray and washed out.<br>■ **Sharpness**<br>Increases or decreases the apparent detail in the picture. Too little sharpness and the image might look soft. Too much sharpness can add false edges to objects or can make noise more noticeable.<br>■ **Colour**<br>Increases or decreases colour saturation levels in the picture. Too little colour and the image will be black and white (undersaturated); too much colour and the image will look oversaturated and cartoonish.<br>■ **Tint (G/R)**<br>Changes the picture hue from reddish to a greenish appearance. |
| **Advanced Settings** | Samsung's new TVs allow you to make even more precise picture settings than previous models.<br>■ **Black Tone → Off / Dark / Darker / Darkest**<br>Increases the picture's shadow detail by lightening the black level (ie changing the gamma) at low levels. This is most commonly used for watching movies with dark scenes to keep the picture from appearing washed out in bright rooms.<br>■ **Dynamic Contrast → Off / Low / Medium / High**<br>Increases or decreases the difference between the brightest and darkest portions of the image with changing scenes. Shadows are more visible with dark scenes, while contrast is enhanced with bright scenes. |




■ Press the **TOOLS** button to display the **Tools** menu. You can also set the picture mode by selecting **Tools → Picture Mode**.

■ Only analogue **TV**, **Ext.**, **AV** modes of the PAL system, you cannot use the **Tint (G/R)** Function.
■ When you make changes to **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Colour** or **Tint (G/R)**, the OSD will be adjusted accordingly.
■ In PC mode, you can only make changes to **Backlight**, **Contrast** and **Brightness**.
■ Settings can be adjusted and stored for each external device you have connected to an input of the TV.
■ The energy consumed during use can be significantly reduced if the brightness level of the picture is lowered, which will reduce the overall running cost.




■ **Advanced Settings** is available in **Standard** or **Movie** mode.
■ In PC mode, you can only make changes to **Gamma** and **White Balance** from among the **Advanced Settings** items.

| Picture | |
|---|---|
| **Option** | **Description** |
| **Advanced Settings** | ■ **Gamma**<br>Changes the rate at which images ramp or fade from light to dark. Recommended for advanced users only.<br>■ **Colour Space**<br>Increases or decreases the visible colour range for red, green and blue. Recommended for advanced users only.<br>– **Auto**: The TV will choose the colour range that is closest to the range used during TV and movie production.<br>– **Native**: Displays the most enhanced, vibrant colours possible.<br>■ **White Balance**<br>You can adjust the colour temperature for more natural picture colours.<br>– **R, G, B-Offset:** Fine tunes the white balance, or colour 'temperature' in dark areas by changing the individual values of R, G, B. Recommended for advanced users only.<br>– **R, G, B-Gain:** Fine tunes the white balance, or colour 'temperature' in the light areas by changing the individual values of R, G, B. Recommended for advanced users only.<br>– **Reset**: The previously adjusted white balance will be reset to the factory defaults.<br>■ **Flesh Tone**<br>Adjusts the colour of flesh tones. Increasing the value creates a more reddish picture. Decreasing the value creates a more greenish picture.<br>■ **Edge Enhancement**<br>Increases or decreases the emphasis at object edges. |
| **Picture Options** | ■ **Colour Tone**<br>Selects a preset white balance, or "colour temperature" setting, to provide either a reddish or bluish hue, dependant upon your personal preference.<br>– **Cool:** Selects a white balance, or colour "temperature" with a bluish hue. Skin tones may have less warmth but whites will seem brighter. Recommended when watching normal TV broadcasting in a bright room.<br>– **Normal:** Selects the white balance, or colour "temperature" with a less bluish, more reddish hue. Suitable for most viewing environments and programs.<br>– **Warm1**, **Warm2:** Selects a redder, warmer hue that more closely matches the setting on monitors used in the production of TV and movie content. Recommended when watching movie and dramatic TV content. The lowest setting is best used for black & white content. |

■ Changing the adjustment value will refresh the adjusted screen.

■ In PC mode, you can only make changes to the **Colour Tone** and **Size** from among the items in **Picture Options**.

■ **Warm1** or **Warm2** is only activated when the picture mode is **Movie**.

| Picture | |
|---|---|
| **Option** | **Description** |
| **Picture Options** | ■ **Size**<br>Changes the screen shape in terms of height and width. Also known as Aspect Ratio.<br>– **Auto Wide**: Enables the correct picture size to match the original video signal.<br>– **16:9**: Sets the picture aspect ratio to fill the screen.<br>– **Wide Zoom**: Enlarges the middle part of the picture.<br>– **Zoom**: Magnifies the picture contents horizontally and vertically.<br>– **4:3**: Sets the picture aspect ratio to 4:3 with black or gray side bars.<br>– **Screen Fit**: Matches every pixel of the original image to a pixel on the TV screen (aka 1:1 pixel mapping) to show the entire image.<br>● **Wide Zoom**: Press the ► button to select **Position**, then press the **ENTER** button. Press the ▲ or ▼ button to move the picture up / down. Then press the **ENTER** button.<br>● **Zoom**: Press the ► button to Select **Position**, then press the **ENTER** button. Press the ▲ or ▼ button to move the picture up and down. Then press the **ENTER** button. Press the ► button to Select **Size**, then press the **ENTER** button. Press the ▲ or ▼ button to magnify or reduce the picture size in the vertical direction. Then press the **ENTER** button.<br>● After selecting **Screen Fit** in **HDMI** (1080i) or **Component** (1080i) mode: Select **Position** by pressing the ◄ or ►button. Use the ▲, ▼, ◄ or ► button to move the picture.<br>**Reset**: Press the ◄ or ► button to select **Reset**, then press the **ENTER** button. You can initialize the setting.<br>● If you use the **Screen Fit** function with HDMI 720p input, 1 line will be cut at the top, bottom, left and right as in the Overscan function.<br>■ **Screen Mode**<br>When setting the picture size to **Auto Wide** in a 16:9 wide TV, you can determine the picture size you want to see the 4:3 WSS (Wide Screen Service) image or nothing. Each individual European country requires different picture size so this function is intended for users to select it.<br>– **16:9**: Sets the picture to 16:9 wide mode.<br>– **Wide Zoom**: Magnify the size of the picture more than 4:3.<br>– **Zoom**: Magnify the size of the picture vertically on screen.<br>– **4:3**: Sets the picture to 4:3 normal mode.<br>■ **Digital NR → Off / Low / Medium / High / Auto**<br>Can reduce the grain effect or level of video snow seen in images coming from poor quality sources.<br>■ **HDMI Black Level → Normal / Low**<br>Adjusts the black level in the picture according to the type of signal being transmitted through HDMI.<br>■ **Film Mode**<br>Applies the appropriate video processing needed to achieve the best picture quality for watching movies.<br>– **Off**: Turn the Film Mode function off.<br>– **Auto**: Improves the picture quality for fast motion scenes. |
| **Picture Reset** | Resets all picture settings to the default values.<br>■ **Reset Picture Mode**: Current picture values return to default settings. |

■ Press the **TOOLS** button to display the **Tools** menu. You can also set the size by selecting **Tools → Picture Size**.

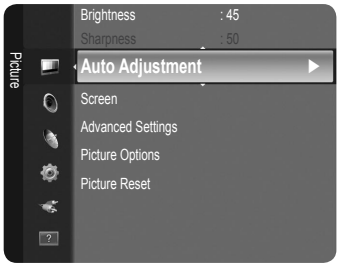
■ Depending on the input source, the picture size options may vary.
■ The items available may differ depending on the selected mode.
■ In PC Mode, only **16:9** and **4:3** mode can be adjusted.
■ Settings can be adjusted and stored for each external device you have connected to an input of the TV.
■ Temporary image retention may occur when viewing a static image on the set for more than two hours.

■ This function is available in **Auto Wide** mode.
■ This function is not available in **PC**, **Component** or **HDMI** mode.

■ This function is active only when an external device is connected to the TV via HDMI (RGB signals).

■ **Film Mode** is supported in **TV**, **AV**, **COMPONENT**(480i / 1080i) and **HDMI**(480i / 1080i).

| Picture (In the PC mode) | |
|---|---|
| **Option** | **Description** |
| **Auto Adjustment** | Use the Auto Adjust function to have the TV set automatically adjust the video signals it receives.<br>The function also automatically fine-tunes the settings and adjusts the frequency values and positions. |
| **Screen** | ■ **Coarse** / **Fine**<br>The purpose of picture quality adjustment is to remove or reduce picture noise. If the noise is not removed by Fine-tuning alone, then adjust the frequency as best as possible (**Coarse**) and Fine-tune again. After the noise has been reduced, readjust the picture so that it is aligned on the centre of screen.<br>■ **PC Position**<br>Adjust the PC's screen positioning if it does not fit the TV screen.<br>Press the ▲ or ▼ button to adjusting the Vertical-Position.<br>Press the ◄ or ► button to adjust the Horizontal-Position.<br>■ **Image Reset**<br>You can replace all image settings with the factory default values. |

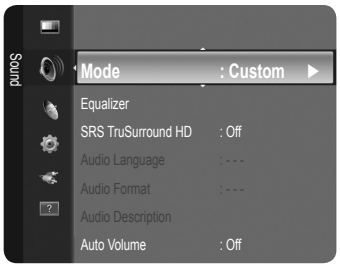



■ **Preset**: Press the **SOURCE** button to select **PC** mode.
■ This function does not work in DVI-HDMI mode.

■ Press the **TOOLS** button to display the **Tools** menu. You can also set the Auto Adjustment by selecting **Tools** → **Auto Adjustment.**

# Sound Menu

| Sound | |
|---|---|
| **Option** | **Description** |
| **Mode** | You can select a sound mode to suit your personal preferences.<br>■ **Standard**: Selects the normal sound mode.<br>■ **Music**: Emphasizes music over voices.<br>■ **Movie**: Provides the best sound for movies.<br>■ **Clear Voice**: Emphasizes voice over other sounds.<br>■ **Custom**: Recalls your customized sound settings. |
| **Equalizer** | The sound settings can be adjusted to suit your personal preferences.<br>■ **Mode**: Selects the sound mode among the predefined settings.<br>■ **Balance L/R:** Adjusts the balance between the right and left speaker.<br>■ **100Hz** / **300Hz** / **1KHz** / **3KHz** / **10KHz** (Bandwidth Adjustment): To adjust the level of different bandwidth frequencies.<br>■ **Reset**: Resets the equalizer settings to the default values. |
| **SRS TruSurround HD** | SRS TruSurround HD is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats. |
| **Audio Language**<br>**(digital channels only)** | You can change the default value for audio languages. Displays the language information for the incoming stream.<br>■ While viewing a digital channel, this function can be selected.<br>■ You can only select the language among the actual languages being broadcast. |
| **Audio Format**<br>**(digital channels only)** | When sound is emitted from both the main speaker and the audio receiver, a sound echo may occur due to the decoding speed difference between the main speaker and the audio receiver. In this case, use the TV Speaker function.<br>■ While viewing a digital channel, this function can be selected.<br>■ The Audio Format appears according to the broadcasting signal. |
| **Audio Description**<br>**(digital channels only)** | This is an auxiliary audio function that provides an additional audio track for visually challenged persons. This function handles the Audio Stream for the AD (Audio Description), when it is sent along with the Main audio from the broadcaster. Users can turn the Audio Description On or Off and control the volume.<br>■ **Audio Description**<br>Turn the audio description function on or off.<br>■ **Volume**<br>You can adjust the audio description volume.<br>– **Volume** is active when **Audio Description** is set to **On**.<br>■ While viewing a Digital channel, this function can be selected. |
| **Auto Volume** | Each broadcasting station has its own signal conditions, and so it is not easy to adjust the volume every time the channel is changed. This feature lets you automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low. |
| **Speaker Select** | When you watch TV with it connecting to a Home theatre, turn the TV speakers off so you can listen to sound from the Home theatre's (external) speakers.<br>■ **External Speaker**: Used to listen to the sound of the External (Home Theatre) Speakers.<br>■ **TV Speaker**: Used to listen to the sound of the TV Speakers. |




■ Press the **TOOLS** button to display the **Tools** menu. You can also configure the sound mode by selecting **Tools** → **Sound Mode**.

■ Press the **TOOLS** button to display the **Tools** menu. You can also set the SRS TruSurround HD by selecting **Tools** → **SRS TS HD**.

■ Press the **AD** button on the remote control to select **Off** or **On**.

■ **Auto Volume** is not available in Component and HDMI mode.

■ The volume buttons and **MUTE** buttons do not operate when the **Speaker Select** is set to **External Speaker**.
■ If you select **External Speaker** in the **Speaker Select** menu, the sound settings will be limited.

| Sound | |
|---|---|
| **Option** | **Description** |
| **Sound Reset** | You can restore the Sound settings to the factory defaults. |

### Selecting the Sound Mode

You can set the sound mode in the **Tools** menu. When you set to **Dual I II**, the current sound mode is displayed on the screen.

| | Audio Type | Dual 1 / 2 | Default |
|---|---|---|---|
| A2 Stereo | Mono | **MONO** | Automatic change |
| | Stereo | **STEREO** ↔ **MONO** | |
| | Dual | **DUAL 1** ↔ **DUAL 2** | **DUAL 1** |
| NICAM Stereo | Mono | **MONO** | Automatic change |
| | Stereo | **MONO** ↔ **STEREO** | |
| | Dual | **MONO** ↔ **DUAL 1** / **DUAL 2** | **DUAL 1** |

- If the stereo signal is weak and an automatic switching occurs, then switch to the mono.
- This function is only activated in stereo sound signal. It is deactivated in mono sound signal.
- This function is only available in TV mode.

# Setup Menu

| Setup | |
|---|---|
| **Option** | **Description** |
| **Menu Language** | You can set the menu language. |
| **Time** | ❑ **Clock**<br>Setting the clock is necessary in order to use the various timer features of the TV. If you disconnect the power cord, you have to set the clock again.<br>■ **Clock Mode**<br>You can set up the current time manually or automatically.<br>– **Auto**: Set the current time automatically using the time from the digital broadcast.<br>– **Manual**: Set the current time to a manually specified time.<br>■ **Clock Set**<br>You can set the current time manually.<br>– This function is only available when **Clock Mode** is set to **Manual**.<br>– You can set the day, month, year, hour and minute directly by pressing the number buttons on the remote control.<br><br>❑ **Sleep Timer**<br>The sleep timer automatically shuts off the TV after a preset time (30, 60, 90, 120, 150 and 180 minutes).<br>■ The TV automatically switches to standby mode when the timer reaches 0.<br>■ To cancel the **Sleep Timer** function, select **Off**.<br><br>❑ **Timer 1 / Timer 2 / Timer 3**<br>Three different on / off timer settings can be made.<br>You must set the clock first.<br>■ **On Time**<br>Set the hour, minute, and activate / inactivate.<br>(To activate timer with the setting you've chosen, set to **Activate**.)<br>■ **Off Time**<br>Set the hour, minute, and activate / inactivate.<br>(To activate timer with the setting you've chosen, set to **Activate**.)<br>■ **Volume**<br>Set the desired volume level.<br>■ **Antenna**<br>Select **Air** or **Cable**.<br>■ **Channel**<br>Select the desired channel.<br>■ **Repeat**<br>Select **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**.<br>– When **Manual** is selected, press the ► button to select the desired day of the week. Press the **ENTER** ↵ button over the desired day and the ✓ mark will appear. |

■ The current time will appear every time you press the **INFO** button.

■ Depending on the broadcast station and signal, the auto time may not be set correctly. If this occurs, set the time manually.
■ The Antenna or cable must be connected in order to set the time automatically.

■ Press the **TOOLS** button to display the **Tools** menu. You can also set the sleep timer by selecting **Tools** → **Sleep Timer**.

■ You can set the hour, minute and channel by pressing the number buttons on the remote control.

■ **Auto Power Off**
When you set the timer on, the TV will be eventually turned off, if no controls are operated for 3 hours after the TV was turned on by the timer. This function is only available in timer on mode and prevents overheating, which may occur if a TV is on for too long time.

| Setup | |
|---|---|
| **Option** | **Description** |
| **Broadcast** | ❑ **Subtitle**<br>You can activate and deactivate the subtitles. Use this menu to set the Subtitle Mode. **Normal** under the menu is the basic subtitle and **Hard of hearing** is the subtitle for a hearing-impaired person.<br>■ **Subtitle**<br>Switches subtitles on or off.<br>■ **Mode**<br>Sets the subtitle mode.<br>■ **Subtitle Language**<br>Set the subtitle language.<br>– If the programme you are watching does not support the **Hard of hearing** function, **Normal** automatically is activated even though **Hard of hearing** mode is selected.<br>– English is the default in cases where the selected language is unavailable in the broadcast.<br><br>❑ **Digital Text**<br>If the programme broadcasts with digital text, this feature is enabled.<br>■ MHEG (Multimedia and Hypermedia Information Coding Experts Group)<br>An International standard for data encoding systems used in multimedia and hypermedia. This is at a higher level than the MPEG system which includes data-linking hypermedia such as still images, character service, animation, graphic and video files as well as multimedia data. MHEG is user runtime interaction technology and is being applied to various fields including VOD (Video-On-Demand), ITV (Interactive TV), EC (Electronic Commerce), tele-education, tele-conferencing, digital libraries and network games.<br><br>❑ **Teletext Language**<br>You can set the Teletext language by selecting the language type.<br>■ English is the default in cases where the selected language is unavailable in the broadcast.<br><br>❑ **Preference**<br>■ **Primary Audio Language** / **Secondary Audio Language** / **Primary Subtitle Language** / **Secondary Subtitle Language** / **Primary Teletext Language** / **Secondary Teletext Language**<br>Using this feature, users can select one of the languages. The language selected here is the default when the user selects a channel.<br>If you change the language setting, the Subtitle Language, Audio Language, and the Teletext Language of the Language menu are automatically changed to the selected language.<br>The Subtitle Language, Audio Language, and the Teletext Language of the Language menu show a list of languages supported by the current channel and the selection is highlighted. If you change this language setting, the new selection is only valid for the current channel. The changed setting does not change the setting of the Primary Subtitle Language, Primary Audio Language, or the Primary Teletext Language of the Preference menu. |

■ You can select these options simply by pressing the **SUBT.** button on the remote control.

| Setup | |
|---|---|
| **Option** | **Description** |
| **Broadcast** | ❑ **Common Interface**<br>■ **CI Menu**<br>This enables the user to select from the CAM-provided menu.<br>Select the CI Menu based on the menu PC Card.<br>■ **Application Info.**<br>This contains information on CAM inserted in the CI slot and displays it. The Application Info inserting is about the CI CARD. You can install the CAM anytime whether the TV is ON or OFF.<br>**1.** Purchase the CI CAM module by visiting your nearest dealer or by phone.<br>**2.** Insert the CI CARD into the CAM in the direction of the arrow until it fits.<br>**3.** Insert the CAM with the CI CARD installed into the common interface slot. (Insert the CAM in the direction of the arrow, right up to the end so that it is parallel with the slot.)<br>**4.** Check if you can see a picture on a scrambled signal channel. |
| **Security** | ❑ **Child Lock → Off / On**<br>This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programme by muting out video and audio.<br>■ Before the setup screen appears, the PIN number input screen appears. Enter your 4 digit PIN number.<br>■ The default PIN number of a new TV set is **0-0-0-0**.<br>■ You can lock some channels in Channel List.<br><br>❑ **Parental Lock → Parental Rating**<br>This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programme by a 4-digit PIN (Personal Identification Number) code that is defined by the user.<br>■ The **Parental Rating** item differs depending on the country.<br>■ Before the setup screen appears, the PIN number input screen appears. Enter your 4 digit PIN number.<br>■ The default PIN number of a new TV set is "**0-0-0-0**".<br>■ You can change the PIN by selecting **Change PIN** from the menu.<br>■ When the parental ratings are set, the "🔒" symbol is displayed.<br>■ **Allow All**: Press to unlock all TV ratings.<br>■ **Block All**: Press to lock all TV ratings.<br><br>❑ **Change PIN**<br>You can change your personal ID number that is required to set up the TV.<br>■ Before the setup screen appears, the PIN number input screen appears. Enter your 4 digit PIN number.<br>■ The default PIN number of a new TV set is **0-0-0-0**. |

■ CAM is not supported in some countries and regions, check with your authorized dealer.

■ **Child Lock** is available only in TV mode.

■ If you forget the PIN code, press the remote control buttons in the following sequence, which resets the PIN to 0-0-0-0: **POWER** (Off) → **MUTE** → **8** → **2** → **4** → **POWER** (On).

| Setup | |
|---|---|
| **Option** | **Description** |
| **General** | ❑ **Game Mode**<br>When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game menu.<br>■ If **Game Mode** is On:<br>– Picture mode is automatically changed to **Standard** and cannot be changed.<br>– Sound mode is automatically changed to **Custom** and cannot be changed. Adjust the sound using the equalizer.<br>■ The Reset Sound function is activated. Selecting the Reset function after setting the equalizer resets the equalizer settings to the factory defaults.<br><br>❑ **Energy Saving**<br>This feature adjusts the brightness of the TV in order to reduce power consumption. When watching TV at night, set the **Energy Saving** mode option to **High** to reduce eye fatigue as well as power consumption.<br>If you select **Picture Off**, the screen is turned off and you can only hear the sound. Press any button to get out of **Picture Off**.<br><br>❑ **Melody**<br>A melody sound can be set to come on when the TV is powered On or Off.<br>■ The Melody does not play<br>– When no sound is output from the TV because the **MUTE** button has been pressed.<br>– When no sound is output from the TV because the volume has been reduced to minimum with the volume (-) button.<br>– When the TV is turned off by Sleep Timer function. |

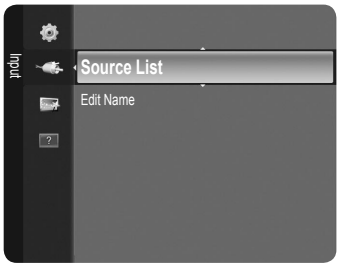
- To disconnect the game console and connect another external device, cancel game mode in the setup menu.
- If you display the TV menu in **Game Mode**, the screen shakes slightly.
- **Game Mode** is not available in regular **TV, PC** and **Ext.** mode.
- If the picture is poor when external device is connected to TV, check if **Game Mode** is **On**. Set **Game Mode** to **Off** and connect external devices.

- In the **Tools** menu, **Picture Off** function is not supported.

- Press the **TOOLS** button to display the **Tools** menu. You can also set the Energy Saving option by selecting **Tools** → **Energy Saving**.

# Input Menu

| Input | |
|---|---|
| **Option** | **Description** |
| **Source List** | Use to select TV or other external input sources such as DVD / Blu-ray players / Cable Box / Satellite receivers (Set-Top Box) connected to the TV. Use to select the input source of your choice.<br>■ **TV / Ext. / AV / Component / PC / HDMI/DVI**<br>– You can choose only those external devices that are connected to the TV. In the **Source List**, connected inputs will be highlighted and sorted to the top. Inputs that are not connected will be sorted to the bottom.<br>● **TOOLS** (**Tools**): Displays the **Edit Name** and **Information** menus. |
| **Edit Name** | Name the device connected to the input jacks to make your input source selection easier.<br>■ **VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC / DVI / TV / IPTV / Bluray / HD DVD / DMA**<br>– When connecting an HDMI/DVI cable to the **HDMI (DVI)** port, you should set the **HDMI/DVI** mode to **DVI** or **DVI PC** in the **Edit Name** of the **Input** mode. In this case, a separate sound connection is required.<br>– When connecting an HDMI/DVI cable to the **HDMI (DVI)** port, you should set the **HDMI/DVI** mode to **DVI** or **DVI PC** in the **Edit Name** of the **Input** mode. In this case, a separate sound connection is required. |

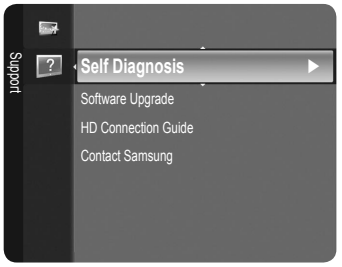



■ Press the **SOURCE** button on the remote control to view an external signal source. TV mode can be selected by pressing the **TV** button.

■ Ext. and PC always stay activated.

# Support menu

| Support | |
|---|---|
| **Option** | **Description** |
| **Self Diagnosis** | ■ **Picture Test**<br>If you think you have a picture problem, perform the picture test. Check the colour pattern on the screen to see if the problem still exists.<br>– **Yes**: If the test pattern does not appear or there is noise in the test pattern, select **Yes**. Therefore, contact Samsung's call centre for assistance.<br>– **No**: If the test pattern is properly displayed, select **No**. There may be a problem with your external equipment. Please check your connections. If the problem still persists, refer to the external device's user manual.<br>■ **Sound Test**<br>If you think you have a sound problem, please perform the sound test. You can check the sound by playing a built-in melody sound through the TV.<br>'Does the problem still exist with this sound test?' appears on the screen.<br>– **Yes**: If during the sound test you can hear sound only from one speaker or not at all, select **Yes**. Therefore, contact Samsung's call centre for assistance.<br>– **No**: If you can hear sound from the speakers, select **No**. There may be a problem with your external equipment. Please check your connections. If the problem still persists, refer to the external device's user manual.<br>■ **Signal Information (digital channels only)**<br>Unlike analogue channels, which can vary in reception quality from 'snowy' to clear, digital (HDTV) channels have either perfect reception quality or you will not receive them at all. So, unlike analogue channels, you cannot fine tune a digital channel. You can, however, adjust your antenna to improve the reception of available digital channels. |
| **Software Upgrade** | To keep your product up-to-date with new Digital Television features then software upgrades are periodically broadcast as part of the normal Television signal. It will automatically detect these signals and display the software upgrade banner. You are given the option to install the upgrade.<br>■ **By Channel**<br>Upgrades the software using the broadcasting signal.<br>■ **Standby Mode Upgrade**<br>To continue software upgrade with master power on, select **On** by pressing the ▲ or ▼ button. 45 minutes after entering standby mode, a manual upgrade is automatically conducted. Since the power of the unit is turned on internally, the screen may be on slightly for the LCD product. This phenomenon may continue for more than 1 hour until the software upgrade is completed.<br>■ **Alternative Software**<br>To display the software version information. |
| **HD Connection Guide** | This menu presents the connection method that provides the optimal quality for the HD TV. Refer to this information when connecting external devices to the TV. |
| **Contact Samsung** | View this information when your TV does not work properly or when you want to upgrade the software. You can view the information regarding the call centre, product and software file download method. |




■ If you hear no sound from the TV's speakers, before performing the sound test, make sure **Speaker Select** is set to **TV speaker** in the Sound menu.

■ The melody will be heard during the test even if **Speaker Select** is set to **External Speaker** or the sound is muted by pressing the **MUTE** button.

■ If the signal strength meter indicates that the signal is weak, physically adjust your antenna to increase the signal strength. Continue to adjust the antenna until you find the best position with the strongest signal.

■ If the function is selected during the software transmission period, this function searches for available software and downloads the software.

■ The time required to download the software is determined by the signal status.

# Other Information

## Teletext Feature

Most television stations provide written information services via Teletext. The index page of the Teletext service gives you information on how to use the service. In addition, you can select various options to suit your requirements by using the remote control buttons.

■ For Teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

❶ (exit)
Exit from the Teletext display.

❷ (mode)
Press to select the Teletext mode (LIST/ FLOF). If you press it in the LIST mode, it switches into the List save mode. In the List save mode, you can save Teletext page into list using the (store) button.

❸ (reveal)
Used to display the hidden text (answers to quiz games, for example). To display normal screen, press it again.

❹ (size)
Press to display the double-size letters in the upper half of the screen. For lower half of the screen, press it again. To display normal screen, press it once again.

❺ (store)
Used to store the Teletext pages.

❻ Colour buttons (red/green/yellow/blue)
If the FASTEXT system is used by a broadcasting company, the different topics covered on a Teletext page are colour-coded and can be selected by pressing the coloured buttons. Press one of them corresponding to the required. The page is displayed with other coloured information that can be selected in the same way. To display the previous or next page, press the corresponding coloured button.

❼ (Teletext on/mix)
Press to activate Teletext mode after selecting the channel providing the Teletext service. Press it twice to overlap the Teletext with the current broadcasting screen.

❽ (sub-page)
Used to display the available sub-page.

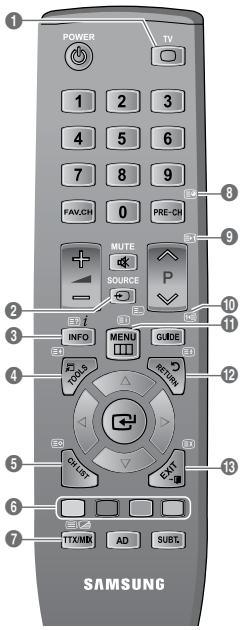
❾ (page up)
Used to display the next Teletext page.

❿ (page down)
Used to display the previous Teletext page.

⓫ (index)
Used to display the index (contents) page at any time while you are viewing Teletext.

⓬ (hold)
Used to hold the display on a given page if the selected page is linked with several secondary pages which follow on automatically. To resume, press it again.

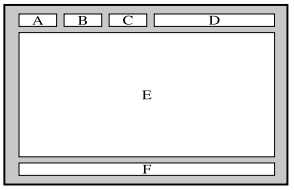
⓭ (cancel)
Used to display the broadcast when searching for a page.




■ You can change Teletext pages by pressing the numeric buttons on the remote control.

**The Teletext pages are organized according to six categories:**

| Part | Contents |
|---|---|
| **A** | Selected page number. |
| **B** | Broadcasting channel identity. |
| **C** | Current page number or search indications. |
| **D** | Date and time. |
| **E** | Text. |
| **F** | Status information. |
| | FASTEXT information. |




- Teletext information is often divided between several pages displayed in sequence, which can be accessed by:
  - Entering the page number
  - Selecting a title in a list
  - Selecting a coloured heading (FASTEXT system)
- Teletext level supported by the TV is version 2.5 which is capable of displaying additional graphics or text.
- Depending upon the transmission, blank side panels can occur when displaying Teletext.
- In these cases, additional graphics or text is not transmitted.
- Older TV's which do not support version 2.5 are not capable of displaying any additional graphics or text, regardless of the Teletext transmission.
- Teletext 16:9, picture is 16:9.

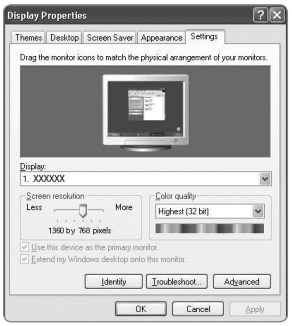
- Press the **TV** button to exit from the Teletext display.

# Using Your TV as a Computer (PC) Display

## Setting Up Your PC Software (Based on Windows XP)

The Windows display-settings for a typical computer are shown below. The actual screens on your PC will probably be different, depending upon your particular version of Windows and your particular video card. However, even if your actual screens look different, the same basic set-up information will apply in almost all cases. (If not, contact your computer manufacturer or Samsung Dealer.)

1. First, click on 'Control Panel' on the Windows start menu.
2. When the control panel window appears, click on 'Appearance and Themes' and a display dialog-box will appear.
3. When the control panel window appears, click on 'Display' and a display dialogbox will appear.
4. Navigate to the 'Settings' tab on the display dialog-box.
   - The correct size setting (resolution) - Optimum: 1360 X 768 pixels.
   - If a vertical-frequency option exists on your display settings dialog box, the correct value is '60' or '60 Hz'. Otherwise, just click 'OK' and exit the dialog box.




## Display Modes

If the signal from the system equals the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal the standard signal mode, adjust the mode by referring to your videocard user guide; otherwise there may be no video. For the display modes listed on the next page, the screen image has been optimized during manufacturing.

**D-Sub and HDMI/DVI Input**

| Mode | Resolution | Horizontal Frequency (KHz) | Vertical Frequency (Hz) | Pixel Clock Frequency (MHz) | Sync Polarity (H / V) |
|---|---|---|---|---|---|
| **IBM** | 640 x 350 | 31.469 | 70.086 | 25.175 | +/- |
| | 720 x 400 | 31.469 | 70.087 | 28.322 | -/+ |
| **MAC** | 640 x 480 | 35.000 | 66.667 | 30.240 | -/- |
| | 832 x 624 | 49.726 | 74.551 | 57.284 | -/- |
| **VESA CVT** | 720 x 576 | 35.910 | 59.950 | 32.750 | -/+ |
| | 1280 x 720 | 44.772 | 59.855 | 74.500 | -/+ |
| | 1280 x 720 | 56.456 | 74.777 | 95.750 | -/+ |
| **VESA DMT** | 640 x 480 | 31.469 | 59.940 | 25.175 | -/- |
| | 640 x 480 | 37.500 | 75.000 | 31.500 | -/- |
| | 640 x 480 | 37.861 | 72.809 | 31.500 | -/- |
| | 800 x 600 | 37.879 | 60.317 | 40.000 | +/+ |
| | 800 x 600 | 46.875 | 75.000 | 49.500 | +/+ |
| | 800 x 600 | 48.077 | 72.188 | 50.000 | +/+ |
| | 1024 x 768 | 48.363 | 60.004 | 65.000 | -/- |
| | 1024 x 768 | 56.476 | 70.069 | 75.000 | -/- |
| | 1024 x 768 | 60.023 | 75.029 | 78.750 | +/+ |
| | 1360 x 768 | 47.712 | 60.015 | 85.500 | +/+ |
| **VESA GTF** | 1280 x 720 | 52.500 | 70.000 | 89.040 | -/+ |

- When using an HDMI / DVI cable connection, you must use the **HDMI (DVI)** jack.
- The interlace mode is not supported.
- The set might operate abnormally if a non-standard video format is selected.
- Separate and Composite modes are supported. SOG is not supported.

# Troubleshooting: Before Contacting Service Personnel

| | |
|---|---|
| No sound or picture | ● Check that the mains lead has been connected to a wall socket.<br>● Check that you have pressed the button on your set.<br>● Check the picture contrast and brightness settings.<br>● Check the volume. |
| Normal picture but no sound | ● Check the volume.<br>● Check whether the **MUTE** button has been pressed on the remote control.<br>● Check the **Speaker Select** settings. |
| Screen is black and power indicator light blinks steadily | ● On your computer check; Power, Signal Cable.<br>● The TV is using its power management system.<br>● Move the computer's mouse or press any key on the keyboard. |
| No picture or black and white picture | ● Adjust the colour settings.<br>● Check that the broadcast system selected is correct. |
| Sound and picture interference | ● Try to identify the electrical appliance that is affecting the set and move it further away.<br>● Plug your set into a different mains socket. |
| Blurred or snowy picture, distorted sound | ● Check the direction, location and connections of your aerial.<br>● This interference is often due to the use of an indoor aerial. |
| Remote control malfunctions | ● Replace the remote control batteries.<br>● Clean the upper edge of the remote control (transmission window).<br>● Check the battery terminals. |
| 'Check signal cable.' message is displayed | ● Check that the signal cable is firmly connected to the PC or video sources.<br>● Check that the PC or video sources are turned on. |
| On PC mode, 'Not Supported Mode.' message is displayed | ● Check the maximum resolution and the frequency of the video adaptor.<br>● Compare these values with the data in the Display Modes. |
| The damaged picture appears in the corner of the screen | ● If **Screen Fit** is selected in some external devices, the damaged picture may appear in the corner of the screen. This symptom is caused by external devices, not TV. |
| The 'Resets all settings to the default values.' message appears. | ● This appears when you press and hold the **EXIT** button for a while. The product settings are reset to the factory defaults. |
| You may see small particles if you look closely at the edge of the bezel surrounding the TV screen. | ● This is part of the product's design and is not a defect. |

■ The TFT LCD panel uses a panel consisting of sub pixels (3 133 440) which require sophisticated technology to produce. However, there may be few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

# Specifications

| Model Name | LE22B450 |
|---|---|
| **Screen Size**<br>(Diagonal) | 22 inch |
| **Power Consumption**<br>Standby | <1W |
| **PC Resolution**<br>(Optimum) | 1360 x 768 @ 60Hz |
| **Sound**<br>(Output) | 3W X 2 |
| **Dimensions (WxDxH)**<br>Body<br>With stand | <br>558 x 75 x 384 mm<br>558 x 216 x 437 mm |
| **Weight**<br>With Stand | 7 kg |
| **Environmental Considerations**<br>Operating Temperature<br>Operating Humidity<br>Storage Temperature<br>Storage Humidity | <br>10°C to 40°C (50°F to 104°F)<br>10% to 80%, non-condensing<br>-20°C to 45°C (-4°F to 113°F)<br>5% to 95%, non-condensing |
| **Stand Swivel**<br>Left / Right | 0˚ |

- Design and specifications are subject to change without prior notice.
- This device is a Class B digital apparatus.
- For the power supply and Power Consumption, refer to the label attached to the product.

# Warning! Important Safety Instructions

Please read the appropriate section that corresponds to the marking on your Samsung product before attempting to install the product.

| CAUTION | |
|---|---|
| **RISK OF ELECTRIC SHOCK DO NOT OPEN**<br>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL. | This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.<br> This symbol alerts you that important literature concerning operation and maintenance has been included with this product. |

- The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation.
  To ensure reliable operation of this apparatus, and to protect it from overheating, these slots and openings must never be blocked or covered.
  - Do not cover the slots and openings with a cloth or other materials.
  - Do not block the slots and openings by placing this apparatus on a bed, sofa, rug or other similar surface.
  - Do not place this apparatus in a confined space, such as a bookcase, or built-in cabinet, unless proper ventilation is provided.

  Give your product 10 cm (4 inch) clearance from the wall.
- Do not place this apparatus near or over a radiator or heat resistor, or where it is exposed to direct sunlight.
- Do not place heat generating items such as candles, ashtrays, incense, flammable gas or explosive materials near the product.
- Do not place a water containing vessel on this apparatus, as this can result in a risk of fire or electric shock.
- Do not expose this apparatus to rain or place it near water(near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool etc.). If this apparatus accidentally gets wet, unplug it and contact an authorized dealer immediately. Make sure to pull out the power cord from the outlet before cleaning.
- This apparatus use batteries. In your community there might be regulations that require you to dispose of these batteries properly under environmental considerations. Please contact your local authorities for disposal or recycling information.
- Do not overload wall outlets, extension cords or adaptors beyond their capacity, since this can result in fire or electric shock.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plug end, adaptors and the point where they exit from the appliance.
- To protect this apparatus from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system.
  This will prevent damage to the set due to lightning and power line surges.
- Before connecting the AC power cord to the DC adaptor outlet, make sure the voltage designation of the DC adaptor corresponds to the local electrical supply.
- Never insert anything metallic into the open parts of this apparatus. Doing so many create a danger of electric shock.
- To avoid electric shock, never touch the inside of this apparatus. Only a qualified technician should open this apparatus.
- Make sure to plug the power cord in until it is firmly inserted. When removing the power cord, make sure to hold the power plug when pulling the plug from the outlet. Do not touch the power cord with wet hands.
- If this apparatus does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service centre.
- Be sure to pull the power plug out of the outlet if the TV is to remain unused or if you are to leave the house for an extended period of time (especially when children, elderly or disabled people will be left alone in the house).
  Accumulated dust can cause an electric shock, an electric leakage or a fire by causing the power cord to generate sparks and heat or the insulation to deteriorate.
- Be sure to contact an authorized service centre, when installing your set in a location with heavy dust, high or low temperatures,high humidity, chemical substances and where it operates for 24 hours such as the airport, the train station etc. Failure to do so may cause serious damage to your set.
- Use only a properly grounded plug and receptacle.
  An improper ground may cause electric shock or equipment damage. (Class I Equipment only.)
- To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.
- Do not allow children to hang onto the product.
- Store the accessories (battery, etc.) in a location safely out of the reach of children.
- Do not install the product in an unstable location such as a shaky self, a slanted floor or a location exposed to vibration.
- Do not drop or impart any shock to the product. If the product is damaged, disconnect the power cord and contact a service centre.

***WARNING - TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.***

# Wiring the Mains Power Supply Plug (UK Only)

**IMPORTANT NOTICE**
The mains lead on this equipment is supplied with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug and, if it requires replacing, a fuse approved to BSI1362 of the same rating must be used.
Never use the plug with the fuse cover omitted if the cover is detachable. If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug. Replacement covers are available from your dealer.
If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitably approved extension lead or consult your dealer for assistance. However, if there is no alternative but to cut off the plug, remove the fuse and then safely dispose of the plug.
Do NOT connect the plug to a mains socket as there is a risk of shock hazard from the bared flexible cord.

**IMPORTANT**
The wires in the mains lead are coloured in accordance with the following code:
BLUE - NEUTRAL BROWN - LIVE
As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows :
The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLUE or BLACK. The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

**WARNING:**
DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL, WHICH IS MARKED WITH THE LETTER E OR BY THE EARTH SYMBOL ⏚, OR COLOURED GREEN OR GREEN AND YELLOW.

# Warranty Card

## UNITED KINGDOM

This Samsung product is warranted for a period of twelve (12) months from the original date of purchase, against defective materials and workmanship. In the event that warranty service is required, you should return the product to the retailer from whom it was purchased. However, Samsung Authorised Dealers and Authorised Service Centres in other EC Countries will comply with the warranty on the terms issued to purchasers in the country concerned. In case of difficulty, details of our Authorised Service Centres are available from:

**Samsung Electronics U.K. Ltd.**
**Customer Care Centre**
**PO Box 17243**
**Edinburgh, EH11 4YB**
**United Kingdom**
**Tel: 0845 SAMSUNG (7267864) (UK & Northern Ireland)**
**Tel: 0818 717 100 (EIRE Only)**
**Fax: +44 0845 650 8080**
**Web : www.samsung.com**

**WARRANTY CONDITIONS**

**1**. The warranty is only valid if, when warranty service is required, the warranty card is fully and properly completed and is presented with the original invoice or sales slip or confirmation, and the serial number on the product has not been defaced.

**2**. Samsung's obligations are limited to the repair or, at its discretion, replacement of the product or the defective part.

**3**. Warranty repairs must be carried out by Authorised Samsung Dealers or Authorised Service Centres. No re-imbursement will be made for repairs carried out by non Samsung Dealers and, any such repair work and damage to the products caused by such repair work will not be covered by this warranty.

**4**. This product is not considered to be defective in materials nor workmanship by reason that it requires adaptation in order to conform to national or local technical or safety standards in force in any Country other than the one for which the product was originally designed and manufactured.